

REMARKS

Independent claims 1 and 6 have been amended to require that the ultraviolet absorber comprise sodium benzotriazolyl butylphenol. Claims 8 and 9 have been amended for purposes of consistency with the amendments made to claims 1 and 6. These amendments were not presented earlier because the prior amendments made in this case were believed to place the claims in condition for allowance. However, because of the Examiner's disagreement with respect to the prior amendments, and to expedite allowance of the application, Applicant now presents these amendments, which alleviate the Examiner's concerns regarding the obviousness of the claims as previously presented. These amendments do not require a new search because sodium benzotriazolyl butylphenol was previously searched and considered in relation to claim 20. Therefore, Applicant respectfully requests entry of these amendments and allowance of the claims.

The Examiner rejected claims 1-11 under 35 U.S.C. § 103(a) as being unpatentable over US 5,454,841 to Wolfram et al. ("the '841 patent") in view of US 4,668,235 to Evans et al. ("the '235 patent") or US 6,605,577 to Harrison et al. ("the '577 patent"). The Examiner acknowledges that the '841 patent does not teach benzotriazolyl butylphenol or a benzotriazole derivative, but asserts that it would have been obvious to one of ordinary skill in the art to include benzotriazolyl butylphenol or benzotriazole derivatives in the hair coloring composition disclosed in the '841 patent in view of the '235 patent, which teaches a method for protecting fibers with benzotriazole derivatives. Applicant respectfully disagrees.

The '235 patent does not teach or suggest the use of sodium benzotriazolyl

butylphenol sulfonate in a composition for protecting hair color from environmental insults. Instead, the '235 patent teaches the use of substituted 2-(2'-hydroxyaryl)-2H-benzotriazolesulfonates for treating fibers such as wool, silk and nylon. Nowhere does the '235 patent teach or suggest the use of such compositions for the treatment of hair.

The Examiner also asserts that sodium benzotriazolyl butylphenol sulfonate is disclosed at column 5, lines 28-29 of the '577 patent as an emulsifier that may be used in the composition disclosed in the patent. The Examiner fails to mention, however, that the '577 patent mentions sodium benzotriazolyl butylphenol sulfonate only once in the entire patent and that this one listing of the compound is buried in a voluminous array of more than **500** possible emulsifiers that may be used in the disclosed composition. There is no motivation to single out sodium benzotriazolyl butylphenol sulfonate from the hundreds of possible emulsifiers identified in the patent and combine it with melanin and a cationic surfactant to obtain Applicant's presently claimed invention. In any event, assuming *arguendo* that there are no "surprising results" obtained by using sodium benzotriazolyl butylphenol sulfonate in the composition of the '841 patent instead of a different one of the more than 500 emulsifiers identified in the '577 patent, the surprising results obtained from Applicant's claimed combination of ingredients (described below), as a whole, is sufficient to establish the nonobviousness of the claimed combination.

Moreover, the claimed invention would not have been obvious to one of ordinary skill in the art in view of the cited references because the unique combination of ingredients set forth in Applicant's claims exhibits surprising, beneficial results and, therefore, one skilled in the art would not expect to obtain the benefits of the claimed

invention by simply adding sodium benzotriazolyl butylphenol sulfonate to the composition disclosed in the '841 patent. As shown in Example 3 of Applicant's specification, a composition similar to the composition of Examples 1 and 2 (which contain the unique combination of melanin, sodium benzotriazolyl butylphenol sulfonate, and cinnamidopropyltrimonium chloride), but without melanin, did not inhibit color fading nearly as much as the compositions of Examples 1 and 2. More specifically, the embodiment of the claimed composition shown in Example 1 exhibited 27% less color fading than a control composition that did not contain the claimed combination of ingredients. Similarly, the embodiment of the claimed composition shown in Example 2 exhibited 18% less color fading than a control composition that did not contain the claimed combination of ingredients. On the other hand, a composition that was substantially the same as the composition of Example 2, but without one of the claimed components (melanin), exhibited only 5-6% less color fading than the same control composition. Thus, Applicant's claimed combination of ingredients is unique and exhibits a surprising result in that it is believed to have a beneficial protective effect that is greater than the effects of its individual components, as stated on page one of Applicant's specification. The claimed invention, therefore, is not taught or suggested by the cited references.

The Examiner rejected claims 20-22 as being unpatentable over the '841 patent in view of the '235 patent and further in view of WO/01/05363 to Sanogueira et al. ("the '363 publication"). Neither the '841 patent nor the '235 patent teaches a composition comprising sodium benzotriazolyl butylphenol sulfonate, and neither the '841 patent nor

the '235 patent teaches a composition comprising cinnamidopropyltrimonium chloride, as acknowledged by the Examiner. Nonetheless, the Examiner asserts that it would have been obvious to one of ordinary skill in the art to include benzotriazolyl butylphenol in the hair coloring composition disclosed in the '841 patent in view of the '235 patent, and to further include cinnamidopropyltrimonium chloride in the resulting composition in view of the '363 publication. Applicant respectfully disagrees.

Again, as explained above, the '235 patent does not teach or suggest the use of sodium benzotriazolyl butylphenol sulfonate in a composition for protecting hair color, as required by the claims. More importantly, it would not have been obvious to one of ordinary skill in the art to combine the cited references because the unique combination of the specifically claimed ingredients (soluble melanin derived from sunflower seed, sodium benzotriazolyl butylphenol sulfonate, and cinnamidopropyltrimonium chloride), in the specifically claimed percentages, exhibits surprising results, as explained above.

Furthermore, one of ordinary skill in the art would not be motivated to modify and optimize the percentages of the claimed components to arrive at the claimed percentages because the Examiner's primary reference, the '841 patent, *teaches away* from the claimed percentages. Specifically, the '841 patent suggests including melanin in its composition at a percentage range of 0.1% to 5%. Because the '841 patent is directed to compositions for *coloring* hair, it teaches away from using melanin at any percentage less than 0.1%, let alone using melanin at Applicants' claimed percentages of 0.03% to 0.04%, which is less than half of the lowest amount of melanin suggested by the '841 patent. In addition, the cited references do not disclose the other specific

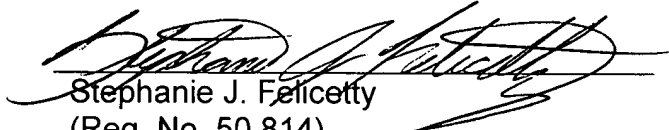
ingredient percentages set forth in Applicant's claims.

Therefore, the cited references do not teach or suggest the presently claimed invention. Applicants respectfully request withdrawal of the rejections and allowance of the claims. If, for any reason, the Examiner feels that the above amendments and remarks do not put the claims in condition for allowance, the undersigned attorney can be reached at (312) 222-8105 to resolve any remaining issues.

Respectfully submitted,

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Date


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